

Agricultural Drainage Channel Maintenance

Manual of Best Management Practices in Oregon

OREGON DEPARTMENT OF AGRICULTURE | OREGON DEPARTMENT OF STATE LANDS
OREGON DEPARTMENT OF FISH AND WILDLIFE

Maintenance of channels used for agricultural drainage is critical to the viability of Oregon's farms and ranches. Because of legislation passed in 2019 (HB 2437), specific maintenance activities may be eligible for a Notice (ORS 196.906 to 196.919, OAR 603-095-4000 to 603-095-4060) from the Oregon Department of Agriculture (ODA) instead of a Removal-Fill Permit from the Oregon Department of State Lands (DSL). The resulting Program was developed by ODA, DSL, Oregon Department of Fish and Wildlife (ODFW), and interested stakeholders.

You must have a valid Notice or a DSL permit prior to maintaining channels. The Notice provides a streamlined process by which landowners and water districts may, without paying a fee, maintain eligible agricultural channels while ensuring that maintenance protects, maintains, or improves ecological functions of the channels; upholds state objectives for fish recovery; and protects wetlands, waterways, and fish and wildlife habitats. ODA has 45 days to validate a Notice. The work described in the Notice must be completed in compliance with all required conditions within five years after ODA validates the notice. If ODA is unable to validate or deny a Notice within 45 days of receipt, the work may proceed as proposed in the submitted Notice and must be completed within five years.

Eligible channels must be:

1. Traditionally maintained = segment, set of segments, or an entire drainage ditch, intermittent stream, or perennial stream that:
 - a. Has been historically maintained for drainage related to agriculture, and
 - b. Could have provided drainage within the past five years, **AND**
2. Dry at time of work= no flowing or standing water present in the area to be maintained at the start of or during the maintenance activity, other than small quantities of water that may occur in low areas of the channel as a direct result of active maintenance activities, **AND**
3. Not ESH (Essential Indigenous Anadromous Salmonid Habitat) = streams not designated as necessary to prevent the depletion of indigenous anadromous salmonid species during spawning and rearing. ESH includes any adjacent off-channel rearing or high-flow refugia habitat with a permanent or seasonal surface water connection to an ESH stream. See the map at <https://maps.dsl.state.or.us/esh/>.

Work must be done during Regional Maintenance Time Periods designated by ODFW. A variance process is available to request alternate work periods.

Compliance with Agricultural Water Quality Rules will decrease the need to maintain channels, by minimizing field erosion and maintaining vegetation that stabilizes banks and filters sediment out of overland flows.

Opportunities and incentives are available to landowners to enhance ecological functions of maintained channels. Contact your local Soil and Water Conservation District or watershed council for assistance.



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Oregon Department of State Lands

Contact the Aquatic Resource Coordinator by county,
503.986.5200,
www.oregon.gov/dsl/WW/Pages/WWStaff.aspx

Oregon Soil and Water Conservation Districts (SWCDs)

<https://oda.direct/SWCDDirectory>

FOR MORE INFORMATION

Email:
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Website:
<https://oda.direct/AgChannelMaintenance>

Sign up for updates:
<https://oda.direct/AgChannelUpdates>

This manual is meant to help landowners and water control districts improve the drainage on their property in compliance with regulations. It covers the requirements and best management practices (BMPs) for Agricultural Drainage Channel Maintenance projects. However, a variance for most requirements can be requested from ODA; request does not guarantee approval.

If your work does not qualify for the Notice program, you may need a permit from DSL (<https://www.oregon.gov/dsl/WW/Pages/Permits.aspx>).

Parts of this manual have been adapted, with permission, from King County, Washington, IT Design and Civic Engagement Unit.

Before starting work

Oregon has streamlined agricultural drainage maintenance regulations. However, there are requirements. In addition, other state and federal regulations may affect this work. It is the responsibility of the landowner to be aware of and comply with other applicable regulations.

Tribal Cultural Resources: Traditionally maintained channels have been excavated multiple times, however, maintenance work may still uncover archaeological artifacts. Oregon protects archaeological objects and sites of cultural importance to Tribes that may be within submerged and submersible lands. A person “may not excavate, injure, destroy or alter an archaeological site or object or remove an archaeological object located on public or private lands in Oregon unless that activity is authorized by a permit issued under ORS 390.235” (ORS 358.920). Human remains and articles relevant to human burial are especially protected. Additional information is available at <https://oda.fyi/ArchaeologicalSites>, the Oregon Heritage State Historic Preservation Office at (503) 986-0690, and oregon.heritage@oregon.gov.

Fish Passage: It is state law to provide fish passage in all waters of the state that were historically or are presently occupied by native migratory fish (ORS 509.585). To avoid blocking or delaying fish passage and ensure that fish are not stranded, injured, or killed, channel maintenance activities shall leave no holes or vertical steps in the channel bed.

Conservation Program Eligibility: ODA’s validation of your Notice does not qualify you for United States Department of Agriculture (USDA) programs and may make you ineligible. If you are a USDA Farm Bill Program participant or are interested in USDA Programs, please contact your local USDA Service Center or go to <https://offices.sc.egov.usda.gov/locator/app> to determine if you need to update your AD-1026 Highly Erodible Land and Wetland Conservation Certification form.

Federal Permits and Review: Your work may require a federal permit (Section 404 Clean Water Act permit from the U.S. Army Corps of Engineers). If so, this would trigger the need for a certification from the Oregon Department of Environmental Quality (Section 401 Certification or water quality review). If so, maintenance work could not begin until these approvals are in place. It is the applicant’s responsibility to obtain required approvals.

Noxious Weeds: Project site recovery and restoration keeps the site stable and protects your maintenance investment. To protect agricultural production and protect fish and wildlife habitat, revegetation of these sites must not allow the establishment of noxious weeds identified by ODA as an A or B List Weed (<https://oda.direct/NoxiousWeedLawsLists>).



Bank protection was installed when the channel was dry before planting shrubs.

Ensure that your project will not:

- Enlarge or damage an existing water right.
- Violate any condition in the applicable valid notice.
- Convert any wetlands to uplands.
- Alter channels to allow for storage of water that could be used for irrigation or exceed the historic capacity of the channel.
- Be conducted in channels other than traditionally maintained channels.

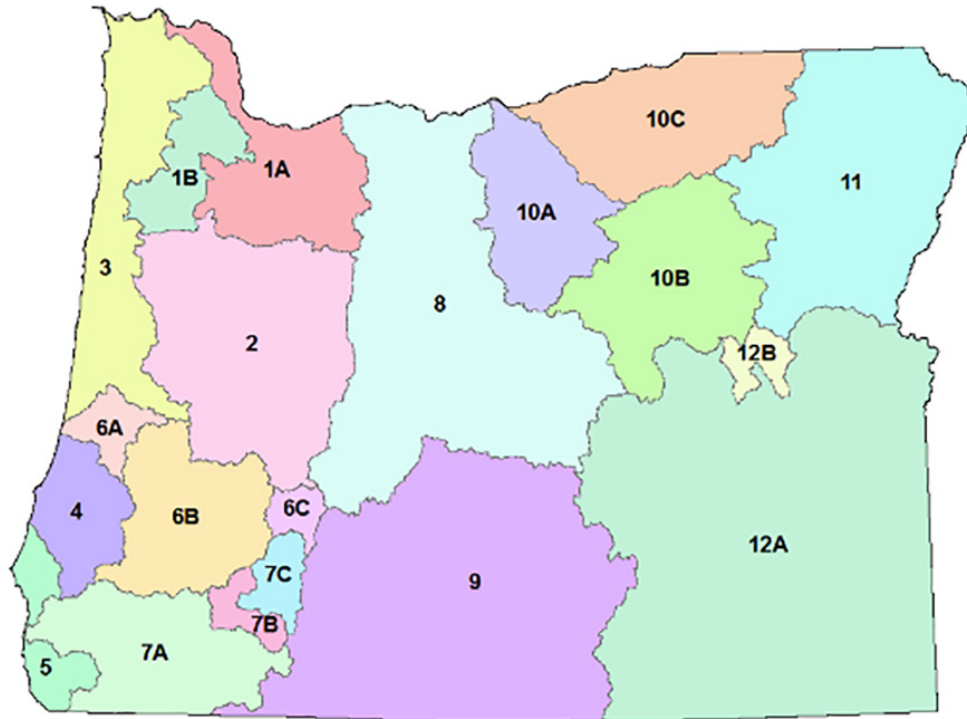
Ensure that your project will meet Required Conditions and Prohibitions (see legal descriptions at end):

- Avoid and minimize impacts to channel functions, migratory fish, wildlife, and habitat.
- Avoid and minimize impacts to mature riparian vegetation.
- Removal of woody vegetation must be kept to the minimum amount needed to complete the maintenance project.
- Limit excavation to the minimum amount necessary to maintain drainage, not to exceed 3,000 cubic yards per mile of channel.

Regional Dry Maintenance Time Periods

Regional Dry Maintenance Time Periods (RDMTs), summarized from OAR 603-635-418

All work must be conducted during the RDMT for your area unless you have an approved variance. The region descriptions are updated. This map and table provide the current valid descriptions as of August 2022.



Region	Description, as summarized by ODA	Time Period
1A. North Willamette	<ul style="list-style-type: none"> Columbia River above Hunt Creek to Herman Creek Sandy Willamette to, but not including, the Santiam River Except for watersheds described in 1B. 	Aug. 1-31
1B. North Willamette	Tualatin, Yamhill and Rickreall watersheds	Aug. 1-Sept. 30
2. South Willamette	Santiam River, and the Tualatin and Yamhill watersheds	July 15-Sept. 30
3. North Coast	<ul style="list-style-type: none"> Lower Columbia downstream of and including Hunt Creek Tribs to the ocean south to and including 3Mile Creek (basically Necanicum south to Siltcoos) 	July 15-Aug. 31
4. Coos-Coquille-10Mile	From south of the South Jetty at Winchester Bay to and including Twomile Creek	July 15-Sept. 22
5. South Coast	2Mile Creek to California	July 15-Sept. 22
6A. Umpqua	Below Scottsburg Bridge, including Smith River	July 15-Sept. 22
6B. Umpqua	Above Scottsburg Bridge upstream, including North Fork to Slide Creek Dam	July 1-Sept. 30
6C. Umpqua	North Fork above Slide Creek Dam	July 15-Oct. 15

Region	Description, as summarized by ODA	Time Period
7A. Rogue	Below Dodge Bridge at Highway 234 (including Illinois and Applegate Rivers)	July 15-Sept. 30
7B. Rogue	Between Dodge Bridge and William Jess Dam (Lost Creek Lake)	July 15-Aug. 31
7C. Rogue	Above William Jess Dam	July 15-Sept. 30
8. Deschutes	Hood River, Deschutes, tribs to Columbia River above Herman Creek to mouth of John Day	Oct. 15-Nov. 15
9. Klamath	Klamath River Basin, Closed Lakes Basin (includes Goose Lake)	Sept. 1-Sept. 30
10A. John Day	John Day below North Fork	July 15-Aug. 30
10B. John Day	John Day above North Fork and including North Fork	July 15-Aug. 15
10C. Willow-Umatilla-WallaWalla	Umatilla, Walla Walla, Mill Creek/Butter Creek, Willow Creek	July 15-Sept. 30
11. Grande Ronde	<ul style="list-style-type: none"> Grande Ronde and its tribs Powder and Burnt Rivers and their tribs Tribs to the Snake River between Washington border and Annex, Oregon 	July 15-Aug. 15
12A. Malheur	<ul style="list-style-type: none"> Closed Lakes Basin (Harney) Snake River tributaries except for 'Malheur 12B' 	Oct. 1-Nov. 15
12B. Malheur	<ul style="list-style-type: none"> Malheur River and tribs above Wolf Creek North Fork Malheur River above Beulah 	Aug. 1-Aug. 31

During Construction

1. The maintained channel must be dry at start of and remain dry for the duration of the maintenance activity.

- If it rains sufficiently during the work to result in standing water or flow in the channel, the work must stop. A variance must then be requested or work resumed after channel is again dry; approval of the variance is not guaranteed.
- Water that is the result of the maintenance activity and incidental to the activity is allowed.

2. Projects must be completed within your Regional Dry Maintenance Time Period unless you have an approved variance.



3. Keep the body of any motorized equipment on top of the bank of the channel.

- Minimize ecological impacts by only using the north or east bank (when practicable).
- If the channel must be crossed, motorized equipment must use an existing crossing.



4. Excavate the bottom of the channel so that it has a smooth grade; do not leave depressions or vertical steps in the channel bed.

- Ensure that there are no physical obstructions in the channel that could block or delay migrating fish (upstream and downstream) and ensure that fish are not stranded, injured, or killed.

The type of equipment can greatly influence your success. The equipment boom must be long enough to reach the bottom of the waterway while staying off the waterway side slopes. A toothless bucket is strongly encouraged to minimize disturbance of material below the historic waterway bottom and to maintain a smooth grade on the bottom of the channel. If a toothless bucket is unavailable, a steel plate could be welded to the teeth.

5. The location of the channel must not change.

6. Removed material must be placed to prevent it from re-entering the channel.

Landowners and water control districts should have a contingency plan in place to contain removed sediment from entering surface waters as a result of flooding or severe weather.

- Any piled row of sediment must include gaps to allow floodwaters to access and recede from fields upland of the channel.
- Excavated material that contains invasive species (e.g. blackberries or reed canary grass) should be disposed of in a way that minimizes spread of invasives in temporary and permanent disposal areas.

During Construction

7. Begin the project at the most upstream location and proceed downstream.

Working from upstream to downstream allows disturbed sediment to be captured and removed as work is completed downstream.

8. Material removed from the channel can be placed adjacent to the channel temporarily to dry.

- Material may not be placed in a natural, undisturbed wetland.
- If the area adjacent to the channel is a wetland or converted wetland, this material must be moved to uplands or spread outside of the riparian area no later than one year after the date of completion.
- Placed material may not convert wetland to uplands or change the depth or functionality of a wetland.
- Impacts to wetlands must be temporary and limited to accessing the site and placement of material for less than one year.

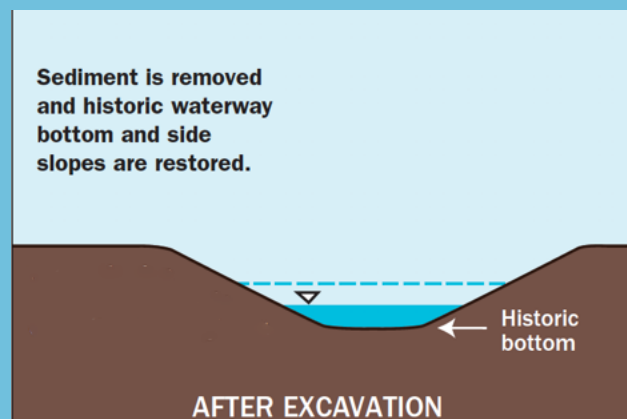
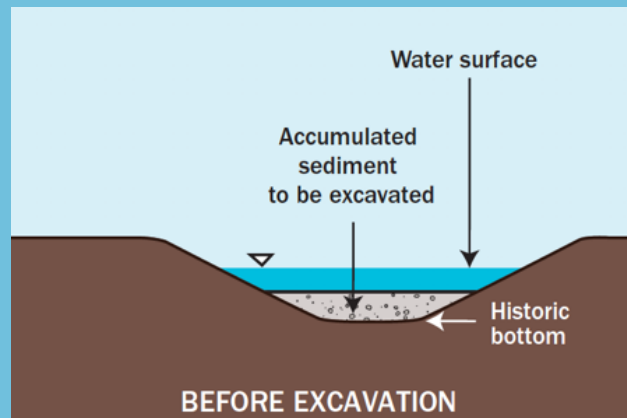
9. Existing inlet or outlet connections must not be altered.

Modifying connections can adversely affect the hydrology of the channel, leading to washouts, unstable banks, and high flows.

- If the orientation of the inlet or outlet is unstable, a variance may be applied for to improve the stability of the inlet or outlet.

10. Maintenance activities must not increase the depth or width of the channel, which could provide drainage, beyond what has been routinely maintained.

Excavation Limits



After Construction

1. Revegetating disturbed areas.

Any riparian areas that serve as a buffer adjacent to the channel and that experience vegetation loss as a result of the maintenance activity *must* be revegetated. This condition is satisfied whether revegetation occurs naturally or after seeding.

- Revegetation must result in adequate ground cover to keep the banks stable and prevent erosion.
- Revegetate disturbed areas with appropriate erosion control seed; mulch with straw as necessary.
- Consider planting native shrubs/trees on channel bank to reduce erosion, decrease water temperatures, and maintain fish and wildlife habitat.
- Planting and seeding must not result in the establishment of noxious weeds as identified by ODA as an A List or B List Weed at the time of the revegetation work (<https://oda.direct/NoxiousWeedLawsLists>).



Spread grass seed and straw on all disturbed areas above the waterline. Minimizing disturbed areas during construction can reduce erosion control costs.

2. Monitor erosion control and revegetation efforts.



Planting tubes can protect plants when weed wacking and from animal browse (and reduce overall costs).

- Add additional erosion control such as mulching, wattles, and silt fencing as needed to address short- and long-term erosion control needs.

Mandatory Notice Conditions (OAR 603-095-4030)

(1) A traditionally maintained channel must be dry before the commencement of any removal activities in the channel. If there is standing water in the channel that is due to a single rain event and the presence of the water is not indicative of a stream, a person must request a variance on a form provided by the Oregon Department of Agriculture prior to initiation of channel maintenance activities.

(2) A person must begin and complete activities that require removal of material from the traditionally maintained channel during the applicable regional dry maintenance time period, as designated by the Oregon Department of Fish and Wildlife, for the region where the traditionally maintained channel is located.

(3) The body of any motorized equipment that is used to conduct removal-fill activities must be operated from the streambank or bank of the channel, with only the bucket of the motorized equipment that actively removes material operating within the channel.

(4) Any excavation of the bottom of the channel must be on a smooth grade and in a manner that does not create depressions or grade changes within the channel.

(5) Maintenance activities must be conducted in a manner that minimizes new erosion in the channel.

(6) Removal of woody vegetation must be limited to the minimum amount needed to complete the maintenance activity.

(7) Revegetation must occur for any riparian areas that serve as a buffer adjacent to the channel and that experience vegetation loss as a result of the maintenance activity. This condition is satisfied whether revegetation occurs naturally or after seeding. Revegetation shall result in adequate ground cover to keep the banks stable and prevent erosion.

(8) All work related to the maintenance activity must be conducted only from one bank of the channel, on either the north or east side, when practicable, to minimize the ecological impacts of the maintenance activity.

(9) Motorized equipment used for maintenance activities must utilize existing crossings, if crossing the channel is

necessary to complete maintenance activities.

(10) Maintenance activities must begin at the most upstream location of the traditionally maintained channel and progress downstream.

(11) Material that is removed from the channel may be temporarily placed in a wetland or converted wetland located adjacent to the channel to dry, provided that the material must, no later than one-year after the date that the maintenance activity was completed, be moved uplands or be spread in a thin layer outside the riparian area that serves as a buffer adjacent to the channel. Material may only be permanently spread in a thin layer where agricultural activity presently and historically has occurred.

(12) Maintenance activities may not result in converting wetlands to uplands and may not materially change the depth or functionality of a wetland. The determination of functionality of a wetland will vary for each property, but may include fish and wildlife habitat, hydrologic and water quality functions.

(13) Impacts to wetlands caused by channel maintenance activities must be temporary and must be limited to wetlands adjacent to the channel, impacts related to accessing the site to conduct removal activities in the channel, and the removal of material and the disposal of material.

(14) Maintenance activities may not result in a change in location of a channel through the digging of a new channel and the diversion of the flow from the old channel into the new channel. Maintenance activities may not cause or result in increasing the width or depth of the channel beyond the width or depth to which the channel has routinely been maintained to facilitate drainage.

(15) Maintenance activities must not result in alteration of any existing inlet or outlet connections with other waterways.

(16) The temporary placement of material along one side of the traditionally maintained channel must include gaps or flow paths to allow channel floodwaters to access the fields upland of the channel.

Prohibitions (OAR 603-095-4040)

(1) No person may commence any removal-fill activities for the maintenance of a traditionally maintained channel unless a valid notice is posted on the Oregon Department of Agriculture website, the Department has not responded within 45 days of receiving a complete notification per ORS 196.915(3) and OAR 603-095-4020(6), or unless a removal-fill permit, pursuant to ORS Chapter 196.911, is obtained from the Oregon Department of State Lands.

(2) No person may commence any removal activities in a traditionally maintained channel that is not dry unless a variance is obtained from the Oregon Department of Agriculture. The variance may be granted for a channel that is not dry due to a rain event and not indicative of a perennial stream.

(3) A person with a valid notice may not conduct activities that result in removal of more than 3,000 cubic yards per linear mile of a traditionally maintained channel over the course of the five-year period for which the notice is valid.

(4) A person with a valid notice may only spread in a thin layer excavated material in a converted wetland or where agricultural activity presently and historically has occurred, and not in a volume of greater than 3,000 cubic yards per linear mile of traditionally maintained channel over the course of the five-year period for which the notice is valid.

(5) A person with a valid notice may not conduct any maintenance activities, remove or place fill material in a channel that has been designated by the Oregon Department of State Lands as Essential Indigenous Anadromous Salmonid Habitat, as defined in ORS 196.810.

(6) A person with a valid notice may not, through the conduct or result of any maintenance activities, enlarge a water right or cause injury to an existing water right.

(7) Maintenance activities must not violate any condition in the applicable valid notification.

(8) No work associated with a valid notice may result in the permanent conversion of wetlands to uplands.

(9) Maintenance activities shall not include altering traditionally maintained channels to allow for storage of water that could be used for irrigation.

(10) Maintenance activities shall not be conducted in channels other than traditionally maintained channels, as defined in 603-095-4005(15).

(11) Placement of material in wetlands not presently or historically disturbed by agricultural activities constitutes a material change to the depth or functionality of the wetland and is prohibited.